

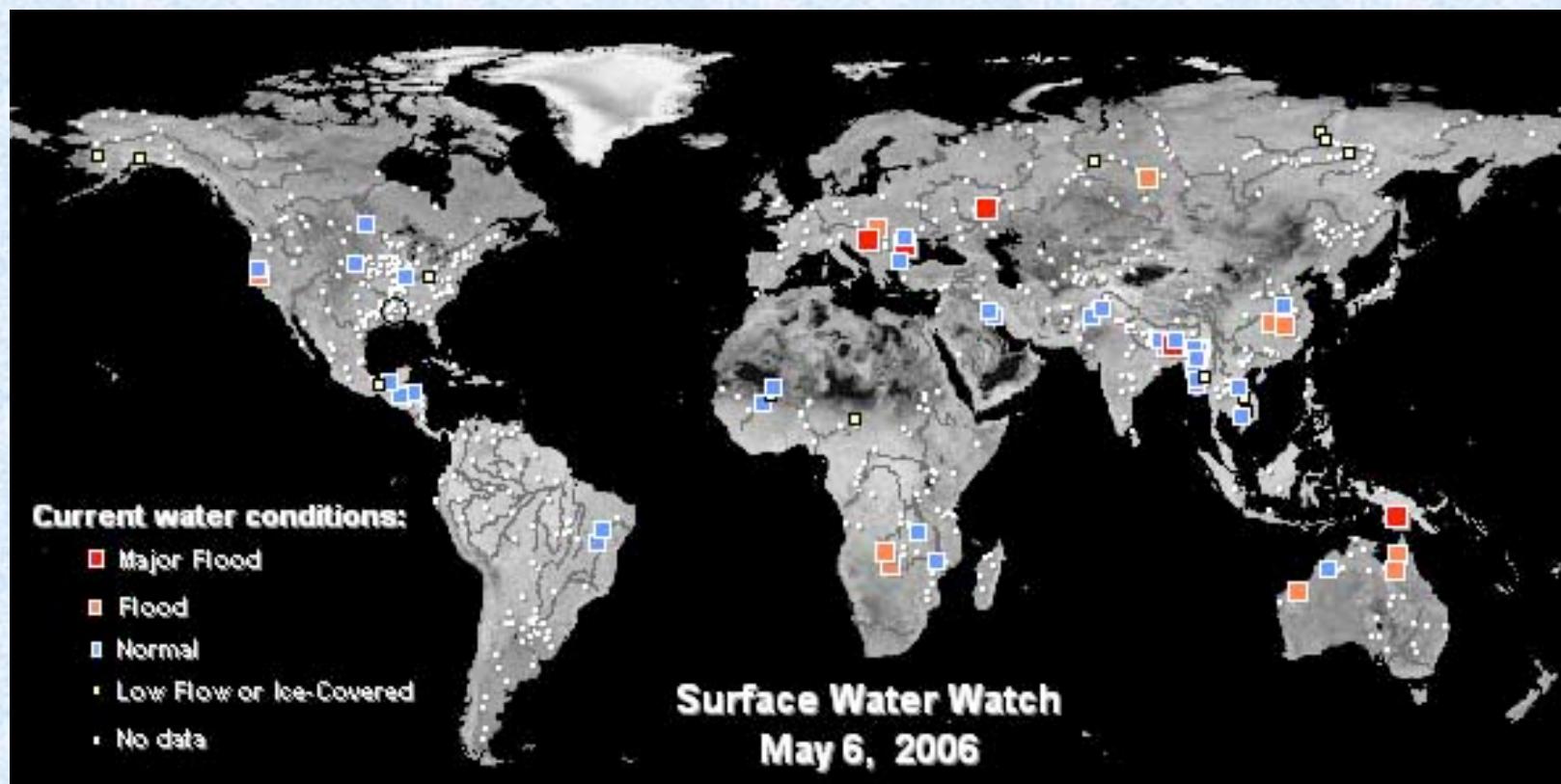
Satellite Microwave Detection and Measurement of River Floods

Robert Brakenridge, Elaine Anderson, Son Nghiem
(*Eos Trans., AGU, 87(36), Jt. Assem. Suppl., Abstract H23A-05, Invited, 2006*)



We have developed an innovative method to measure river discharge and floods using microwave data from the Advanced Microwave Scanning Radiometer (AMSR-E) aboard NASA's Aqua Satellite. This new method provides river discharge data at numerous river reaches world-wide.

Currently, 53 reaches are being monitored daily. Eventually, this array can be expanded to over 700.

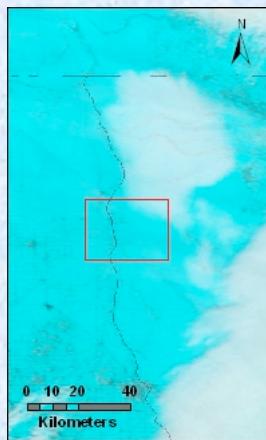


<http://www.dartmouth.edu/~floods/>

Example of river monitoring, Reach 134, Red River at Drayton, North Dakota

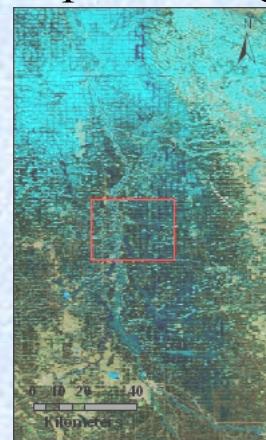
March 28

Snow covered



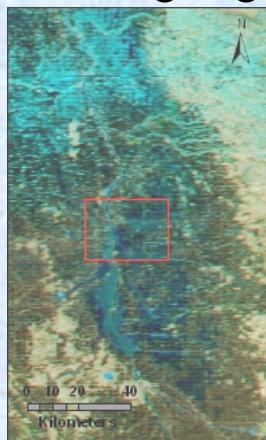
April 3

Rapid melting



April 4

Flooding begins



April 7

Just prior to peak flood



AMSR-E results. Black line is discharge measured on the ground, brown line from space

